

Abstract

An ingredient cooking-operation recognition system is provided which is capable of precisely specifying an ingredient that is cooked by a person and a cooking operation for the ingredient, and accurately estimating a cooking recipe for a dish that is prepared by the person. The system includes a sensing section which has an optical camera, a thermal camera, and a microphone that acquires an environment sound. Moreover, the system includes a feature-quantity template creation section which creates a feature-quantity template and a recognition processing section. The recognizing processing section calculates, on the basis of observation data acquired by the sensing section, an observation certainty factor and a cooking operation, creates a cooking flow based on the observation certainty factors, calculates a relevance factor of this cooking flow and recognizes the ingredient, the cooking operation and a cooking recipe.